



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/558,329	04/25/2000	Randolph A. Stern	STAN-09RE	9722

26875 7590 08/13/2010
WOOD, HERRON & EVANS, LLP
2700 CAREW TOWER
441 VINE STREET
CINCINNATI, OH 45202

EXAMINER

JUSKA, CHERYL ANN

ART UNIT	PAPER NUMBER
----------	--------------

1786

MAIL DATE	DELIVERY MODE
-----------	---------------

08/13/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/558,329
Filing Date: April 25, 2000
Appellant(s): STERN ET AL.

Timothy D. Ardizzone
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed May 14, 2010 appealing from the Office Action mailed April 14, 2010.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the Brief.

(2) Related Appeals and Interferences

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

Appeal No. 2005-0019, Decision on Appeal mailed January 19, 2005 and Response to Request for Rehearing mailed March 25, 2005.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 1-87 are pending, rejected, and on appeal.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the Brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office Action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's Brief.

(8) Evidence Relied Upon

US 4,026,129	Sternlieb	05/1977
US 4,128,686	Kyle et al.	12/1978
US 4,181,514	Lefkowitz et al.	01/1980
US 4,675,226	Ott	06/1987
US 5,356,402	Gillies et al.	10/1994
EP 261 904	Taylor	03/1988

Art Unit: 1786

(9) Grounds of Rejection

Note the following rejections (in the single-spaced sections) are copied from the Examiner's Answer of March 12, 2004 in which the Board affirmed in Appeal No. 2005-0019 on January 19, 2005. The only difference in each of appellant's independent claims since said Board decision is the addition of the limitation "wherein each yarn face is effectively continuous such that the corresponding web surface is not generally exposed at the associated yarn face." This limitation is addressed collectively with respect to the prior art (in the double-spaced sections) following said affirmed rejections (in the single-spaced sections). Additionally, comments regarding the specific prior art references follow. Also, note arguments pertaining to all the art rejections are highlighted in bold.

I. Due to lack of an explicit definition in the specification, for the purposes of examination, Appellant's claim term "felt web" is interpreted in a broad sense as any nonwoven, web, or batting comprising discontinuous or staple fibers.

II. Claims 65 and 67-69 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 4,026,129 issued to Sternlieb.

Sternlieb discloses a composite fabric comprising a nonwoven layer and woven reinforcing scrim, wherein said nonwoven and scrim are stitchbonded into a composite fabric (abstract). The nonwoven is preferably made from hydrophilic fibers (col. 2, lines 20-34). The stitchbonding is preferably a tricot stitch made by a warp knitting machine, such as an "Arachne" machine (col. 2, line 57-col. 3, line 2). The yarn for said stitchbonding is preferably spun polyester, which Appellant teaches as having inherently hydrophobic properties (Sternlieb, col. 3, lines 3-4 and specification, page 3, lines 10-12). It is asserted that the recitations to overlaps, underlaps, upper flat stitches, and lower loop stitches in the present claims are inherent to the disclosed stitchbonding method of Sternlieb. Thus, it can be seen that claims 65 and 67-69 are anticipated by the cited Sternlieb patent.

III. Claims 30-37 and 51-64 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,181,514 issued to Lefkowitz et al.

Lefkowitz discloses at least one nonwoven batt of relatively brittle fibers which is stitchbonded (abstract and col. 2, lines 55-61). The nonwoven batt may be made of one web

Art Unit: 1786

folded upon itself or may comprise more than one batt (col. 2, lines 61-68). The stitchbonding yarns are preferably metallic or glass mono- or multi-filaments, both of which inherently possess hydrophobic properties (col. 3, lines 1-4). The brittle fibers of the nonwoven batt may be glass, silica, ceramic, carbon, or graphite, all of which would inherently fall into the classification of hydrophobic fibers (col. 4, lines 19-24). The batt may be reinforced with a scrim (col. 3, lines 12-15). Figures 1, 2, and 5 show the claimed underlaps, overlaps, flat-stitches, and loop-stitches.

With regard to Appellant's limitations in claim 51 that the felt web is "adapted to retain fluid therein" and the stitch bonding yarns being hydrophobic "whereby to assist in wicking fluid into the felt web," it is asserted that neither limitation is hereby given patentable weight. Specifically, it has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchinson*, 69 USPQ 138. In the instant case, a nonwoven batt of any fiber material will inherently have an ability to retain *at least some* fluid due to the nature of fiber entanglement in said batt and the nature of surface tension of water. Similarly, it has been held that the functional "whereby" statement does not define any structure and accordingly can not serve to distinguish a claimed invention from the prior art. *In re Mason*, 114 USPQ 127, 44 CCPA 937 (1957). Thus, it can be seen that the cited Lefkowitz patent anticipates Appellant's claims 30-37 and 51-64.

IV. Claims 1, 3-9, 12, 14-20, 30, 32-38, 51, 53-56, 58, 59, 61-66, 68, and 69 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,675,226 issued to Ott.

Ott discloses a stitchbonded composite wiper comprising an outer nonwoven layer of thermoplastic fibers and an inner layer of cellulose webs (i.e., hydrophilic) (abstract). In one embodiment, the thermoplastic layer comprises meltblown discontinuous microfibers of polypropylene (hydrophobic) (claim 9, col. 6, lines 43-47). The layers are stitch bonded with polyester yarns (hydrophobic) on either a Maliwatt or Malimo stitching machine (col. 3, lines 5-11), which would inherently produce Appellant's claimed underlaps, overlaps, flat-stitches, and loop stitches. Thus, it can be seen that the cited Ott patent anticipates Appellant's claims 1, 3-9, 12, 14-20, 30, 32-38, 51, 53-56, 58, 59, 61-66, 68, and 69.

V. Claims 30, 32-36, 39, 41, 42, 46-51, 53-56, 65, 68, 69, 80, 83, 84, 86, and 87 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,356,402 issued to Gillies et al.

Gillies discloses a reusable incontinence pad comprising an interior hydrophobic layer, a median carded and crosslapped nonwoven layer of hydrophilic rayon fibers, and an outer layer of a waterproof polyurethane film (abstract and col. 5, lines 1-3). The hydrophilic layer is stitchbonded with hydrophobic polyester thread using a Mali, Mallymo, or Arachni stitchbonding machine (abstract and col. 5, lines 7-11 and lines 23-27), which inherently provides Appellant's claimed overlaps, underlaps, flat-stitches, and loop-stitches. The interior layer is preferably of web of hydrophobic polyester fibers (col. 3, lines 38-40). The outer barrier layer is bonded to the hydrophilic layer (col. 6, lines 58-60). Additionally, the outer layer may comprise a dual layer of the polyurethane film and a fabric layer (col. 6, lines 48-55). Furthermore, Gillies teaches the three layers are finished with a binding stitch around the

Art Unit: 1786

periphery of said layers (col. 7, lines 1-5). Thus, it can be seen that Appellant's claims 30, 32-36, 39, 41, 42, 46-51, 53-56, 65, 68, 69, 80, 83, 84, 86, and 87 are anticipated by the cited Gillies patent.

VI. Claims 2, 10, 11, 13, 21, 22, 31, 52, 57, 60, and 67 are rejected under 35 USC 103(a) as being unpatentable over the cited Ott patent.

With respect to claims 2, 13, 31, 52, 60, and 67, Ott fails to teach the use of a reinforcing scrim. However, the Examiner takes Official Notice that it is common and well known in the art to use scrims to reinforce nonwoven materials. As such, it would have been obvious to a person having ordinary skill in the art to utilize a reinforcing scrim in the wiper material of Ott. Such a modification would have been motivated by the desire to further enhance the strength of said wiper for better performance in the heavy duty wiping uses intended by Ott (abstract and col. 1, lines 5-29). The Examiner notes that the facts asserted to be common and well-known are capable of instant and unquestionable demonstration as being well-known. To adequately traverse such a finding, applicant must specifically point out the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art. Therefore, claims 2, 13, 31, 52, 60, and 67 are rejected as being obvious over Ott.

VII. Claims 1, 3-9, 12, 14-20, 23, 26-29, 37, 38, 43, 58, 61-64, 66, 70, 71, 73, 74, 76-79, and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Gillies patent in view of the cited Ott patent.

Gillies teaches that the hydrophobic layer comprises "a soft hydrophobic web of polyester fibers which has been warp knitted tricot stitched to give the desired porosity" (col. 6, lines 7-10). Thus, Gillies teaches stitching the hydrophobic web and also separately stitching the hydrophilic web. Since it is well known in the art to stitchbond together more than one layer of nonwoven webs, and in particular, to stitchbond together a hydrophobic and hydrophilic web, as is evidenced by the cited Ott patent, it would have been obvious to one of ordinary skill in the art to employ a single stitchbonding process, rather than the two disclosed by Gillies. Motivation to do so would be to eliminate a process step, while maintaining the desired porosity of the hydrophobic layer, and to improve the integrity of the two layers.

With respect to the claim limitation that the stitchbonded yarn is hydrophilic, it is noted that Gillies teaches the use of polyester stitching yarns. However, Ott teaches the stitchbonding yarn may be polyester, rayon, or a blended yarn (col. 2, lines 34-37), wherein rayon yarns are inherently hydrophilic yarns. Therefore, said claims are rejected as being obvious over the cited prior art.

VIII. Claims 10, 11, 21, 22, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Gillies patent in view of the cited Ott patent, as applied to claims 1, 12, and 51 above.

Art Unit: 1786

Said claims limit the stitchbonding yarn to being either a continuous filament yarn or a spun yarn. Gillies and Ott are silent with respect to the yarn type. Both patents merely teach the fiber type of said yarn and the yarn denier. Thus, without a specific teaching to either a filament or spun yarn, one of ordinary skill in the art would presume that both yarn types are suitable for the invention, as long as said yarn meets the fiber and denier requirements taught by Gillies and Ott. Appellant is hereby given Official Notice that filament and spun yarns are the two basic yarn types. The choice of which yarn type to employ in any given application is within the skill level of one versed in the textile arts. Factors which might determine said choice are availability, cost, and strength requirements. Therefore, the use of a filament or spun yarn in the Gillies and Ott inventions would have been obvious to one of ordinary skill in the art. Hence, said claims are rejected.

IX. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Gillies patent in view of the cited Ott patent, as applied to claim 23 above, and in further view of the cited Lefkowitz patent and US 4,128,686 issued to Kyle et al.

Claim 25 limits the first and second webs to be needlepunched into a single web. Although neither Gillies nor Ott teach needlepunching the webs before stitchbonding, it is well-known in the art to needlepunch layers of webs together before stitchbonding. For example, Lefkowitz recites, "Prior to stitch-knitting, it is generally necessary to support the batt or increase the batt integrity so that it can be metered into the stitch-knitting machine without damage or separation." (Col. 4, lines 55-58). Lefkowitz prefers needling said batt to obtain the desired integrity (col. 4, lines 58-61). Additionally, Kyle teaches the use of a needlepunched integral nonwoven felt comprising one layer of absorbent fibers and a second layer of non-absorbent fibers for use in an incontinence pad (col. 6, lines 18-30). Thus, it would have been obvious to one of ordinary skill in the art to needlepunch the batt or web layers of the Gillies or Ott invention together before stitchbonding, in order produce an integral web with sufficient integrity to be fed into a stitchbonding machine. Therefore, claim 25 is rejected as being obvious over the cited art.

X. Claims 40 and 82 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Gillies patent in view of EP 261 904 issued to Taylor.

Claims 24 and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Gillies patent in view of the cited Ott patent, as applied to claims 23 and 70 above, and in further view of EP 261 904 issued to Taylor.

Gillies teaches the barrier layer is mounted over the hydrophilic absorbent layer, but is silent with respect to the use of an adhesive to mount said barrier layer. However, it is well known in the art to adhesively mount a barrier layer to an absorbent layer. For example, Taylor teaches the use of a urethane adhesive to adhere a barrier layer to an absorbent layer of an incontinent pad (col. 7, lines 34-36). Thus, it would have been obvious to one of ordinary skill in the art to employ an adhesive, as is known in the art and evidenced by Taylor, in order to attach the Gillies barrier layer to the absorbent layer, with the expectation of obtaining an integrated laminate incontinent pad.

Art Unit: 1786

XI. Claims 31, 44, 45, 52, 67, and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Gillies patent in view of the cited Sternlieb patent.

Claims 2, 13, 59, 60, and 75 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Gillies patent in view of the cited Ott patent, as applied to claims 1, 12, 58, and 70 above, and in further view of the cited Sternlieb patent.

Gillies does not explicitly teach the use of a scrim layer for reinforcement of the absorbent layer. However, said use of reinforcement is well known in the art, as is evidenced by the cited Sternlieb patent. Thus, it would have been obvious to one of ordinary skill in the art to employ a reinforcing scrim in the invention of Gillies in order to enhance the dimensional stability and durability of the reusable incontinence pad. Therefore, said claims are rejected as being obvious over the cited art.

XII. Claims 1-23, 25-39, 41-71, 73-81, and 83-87 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,128,686 issued to Kyle et al. in view of the cited Gillies, Ott, and/or Sternlieb patents.

Kyle discloses an incontinence pad comprising an absorbent hydrophilic layer and a non-absorbent hydrophobic layer (abstract). The absorbent layer is preferably a felt web of rayon fibers (col. 3, lines 9-15). The non-absorbent layer is preferably a needled felt nonwoven of hydrophobic fibers, such as nylon and polyester (col. 4, lines 51-56). The two layers “can be sewn, bonded, quilted or welded” to each other (col. 4, lines 65-66). Additionally, Kyle teaches the use of a scrim layer attached to the absorbent layer (col. 5, lines 1-10). Furthermore, Kyle teaches the use of a barrier sheet adjacent to the absorbent layer (col. 7, lines 57-61).

Thus, Kyle teaches the limitations of Appellant’s claims with the exception that the hydrophobic and hydrophilic layers are stitchbonded together. However, as previously noted, Kyle clearly teaches the two layers may be attached by several different methods. As noted in the cited Gillies, Ott, and Sternlieb art, stitchbonding is a well-known method of integrating layers of nonwoven webs. Additionally, it is asserted that it would have been obvious to one of ordinary skill in the art to stitchbond the layers together, as an alternative method of attachment. Motivation to employ stitchbonding would be the inherent benefits of stitchbonding, such as good integrity and dimensional stability, and the added wicking benefit that the stitch yarns would provide. Therefore, said claims are rejected as being obvious over the cited prior art.

XIII. Claims 24, 40, 72, and 82 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Kyle patent in view of the cited Gillies, Ott, and/or Sternlieb patents, as applied to claims 23, 39, 70, and 80 above, and in further view of the cited Taylor patent.

Kyle is silent with respect to the use of an adhesive to attach the barrier layer to the absorbent layer. However, it is well known in the art to adhesively mount a barrier layer to an absorbent layer. For example, Taylor teaches the use of a urethane adhesive to adhere a barrier layer to an absorbent layer of an incontinent pad (col. 7, lines 34-36). Thus, it would have been obvious to one of ordinary skill in the art to employ an adhesive, as is known in the art and

Art Unit: 1786

evidenced by Taylor, in order to attach the Kyle barrier layer to the absorbent layer, with the expectation of obtaining an integrated laminate incontinent pad.

- 1. In response to the Board's Decision on Appeal mailed January 19, 2005, appellant filed a Request for Continued Examination (RCE). The RCE amended the independent claims with the limitation "wherein each yarn face is effectively continuous such that the corresponding web surface is not generally exposed at the associated yarn face."**
- 2. The prior art rejections affirmed by the Board were based upon the examiner's proper interpretation of the claim recitation "yarn face" wherein extraneous limitations from the specification are not read into the claim (Decision, pages 9-11.) Specifically, the Board affirmed that said recitation of "yarn face" did not limit said yarn face to being "effectively continuous such that the felt is not generally exposed." In response to said Board Decision, applicant has amended the independent claims to positively recite the limitation "wherein each yarn face is effectively continuous such that the corresponding web surface is not generally exposed at the associated yarn face." However, said amendment is insufficient to overcome said rejections for the reasons set forth in the Examiner's Answer, page 26, 1st paragraph, wherein it was argued that *even if* the term "effectively continuous" was read into the claims, said claims were not patentably distinct from the cited prior art.**
- 3. To reiterate, the new limitation is a relative, subjective description of the yarn face. How continuous is "effectively continuous?" How much exposure is allowed with "not generally exposed?" Regarding the amount of exposure, the specification says 'small gaps or interstices between adjacent yarn segments may allow viewing of the felt surface upon**

Art Unit: 1786

close inspection’ (col. 2, lines 59-63). How small are the “small gaps or interstices?” How close is the “close inspection?” The specification, as originally disclosed, provides no *objective or quantitative* instruction as to what quantifies as “effectively continuous such that the corresponding web surface is not generally exposed at the associated yarn face.” There is no mention of suitable stitch yarn deniers or diameters, stitch sizes, or even stitch densities, which would guide one skilled in the art as to the scope of ‘an effectively continuous yarn face.’ A relative description cannot be relied upon for distinguishing the present invention from the prior art.

While Sternlieb teaches the scrim layer (i.e., “web”) is partially exposed by the “yarn face” of knitting yarns, the amount of exposure claimed by appellant is merely a relative description and not a specified quantitative amount. Sternlieb also teaches a yarn face having a stitch density of about 2 ounces per square yard (osy), yarn sizes of 16-24 singles, and about 12 gauge, 12 stitches per inch (col. 3, lines 28-31). It is asserted that said Sternlieb teachings meet the relative degree of exposure claimed by appellant. Therefore, the claims are rejected by the cited Sternlieb reference.

Regarding the Lefkowitz reference, the yarn face comprises high temperature, corrosion resistant yarns, such as metallic mono- or multifilament or glass multifilaments (col. 2, lines 55-60). Lefkowitz exemplifies ‘a stainless steel monofilament yarn of 5 mil diameter in a stitch-knitting machine employing a two bar tricot stitch having 12 courses per inch (i.e., 12 stitches per inch in the chain stitch direction) with a machine gauge of 40 needles per 10 centimeters or 10 chain stitches per inch’ (col. 7, lines 21-29). Hence, it is argued that the Lefkowitz reference meets appellant’s limitation to a relative degree of continuity and web exposure.

Art Unit: 1786

Ott teaches the stitch yarn forming the yarn face has a denier of 125-175 (col. 2, lines 34-37). In one embodiment, the stitch yarn has a denier of 140-160, a stitch length of 3mm, 14 stitches per inch, and a stitch yarn weight of 40-50 grams per square meter (gsm). Hence, it is argued that the Ott reference also meets appellant's relative limitation of "wherein each yarn face is effectively continuous such that the corresponding web surface is not generally exposed at the associated yarn face."

With respect to the Gillies reference, the stitchbonded yarn face comprises a polyester yarn of approximately 150 denier with about 2-10 rows of stitches per inch and about 6-20 stitches per inch in each row (col. 5, lines 23-36). Again, it is asserted that the teachings of the reference meets appellant's relative limitations of yarn face continuity and web exposure.

In summary, the Sternlieb, Lefkowitz, Ott, and Gillies references clearly teach specific yarn deniers, stitch sizes, and/or stitch densities for the disclosed stitchbonded yarn faces. Appellant, on the other hand, fails to disclose any objective guidelines or quantitative values for the "effectively continuous" yarn face. *A relative limitation cannot serve to patentably distinguish the present invention from the prior art.*

(10) Response to Argument

A. Appellant begins arguments by asserting that the examiner has "effectively ignored" the new limitation of "wherein each yarn face is effectively continuous such that the corresponding web surface is not generally exposed at the associated yarn face" (Brief, page 16, 1st paragraph). Specifically, appellant states, "Without any basis to do so, Examiner thus unlawfully gives no weight to the very words of the claim in order to rewrite them as if they are

Art Unit: 1786

the same as they stood in the previous Appeal.” (Brief, page 16, 1st paragraph.) The examiner respectfully disagrees. The new limitation of the yarn face continuity and the web exposure is definitely not ignored. In fact, the limitation is given patentable weight and considered in full as discussed above. That the limitation results in a subjective, relative description of the yarn face that is met by the cited prior art *is not equivalent* to ignoring the limitation or not affording it patentable weight.

Contrary to appellant’s statement (Brief, page 16, 1st paragraph), the examiner’s “entire-stated basis for the rejections” is not entirely the same as in the prior appeal. Indeed the Office Action of August 5, 2005 does rely upon the previous Examiner’s Answer (as do the above rejections) for the base of the rejection (i.e., part affirmed by Board in prior appeal). However, *the rejection does not end there*. As discussed in sections 3 and 4 of the Non-Final Rejection of August 5, 2005 and as discussed above in bold type, the new limitation to yarn face continuity and web exposure was collectively addressed with respect to the prior art rejections. Also, note that each prior art reference was specifically addressed in sections 6-9 of the Non-Final Rejection of August 5, 2005 and in the double-spaced paragraphs following the bold type above. [Note part of the Examiner’s Answer of the former appeal was also relied upon in the rejection of the new limitation to the effectively continuous yarn face. Specifically, said part (1st paragraph of page 26) of the Answer addressed an alternative scenario wherein the term “effectively continuous” was improperly read into the claims on appeal at that time.]

B. Appellant then argues that the examiner has interpreted the term “felt web” in an overly broad manner inconsistent with the nature of the present invention (Brief, paragraph

Art Unit: 1786

spanning pages 17-18). Appellant notes the Wright Declaration filed February 6, 2006, wherein Mr. Wright explains that the ordinary and customary meaning of “felt” is “a nonwoven sheet of matted material...such matted material has structural integrity, i.e. tensile strength, in all directions” (Wright Declaration, paragraph 12 and Brief, paragraph spanning pages 17-18 and footnote 2, page 17). The Wright Declaration also asserts the fibrous layers employed by the Sternlieb, Lefkowitz, Ott, and Gillies references are not “felts” (Wright Declaration, paragraph 13). Once again, appellant asserts the examiner “effectively ignores the very words of the claims, as well as the factually based, expert opinion of Mr. Wright” (Brief, paragraph spanning pages 17-18). The examiner respectfully disagrees.

First, since the specification as originally filed did not provide a definition of “felt,” the examiner clearly stated from the very first Office Action of prosecution how the term was being defined. See section 7 of the Non-Final Rejection mailed September 22, 2000:

Due to lack of an explicit definition in the specification, for the purposes of examination, Applicant’s claim term “felt web” is interpreted in the broad sense as any nonwoven, web, or batting comprising discontinuous or staple fibers.

Hence, the examiner’s interpretation has been of record throughout prosecution.

Secondly, contrary to the Wright Declaration’s assertion, the fibrous layers of the cited prior art do not necessarily contradict appellant’s definition of “felt.” Wright argues (a) the Sternlieb “layer of carded fiber being unbonded, uncompacted, and unmatted and of intermingled, non-parallel fibers,” (b) the “batt of relatively brittle, unmatted fibers” in Lefkowitz, (c) the Ott “middle layer of cellulose natural fibers and outer layers of layers of either continuous filament thermoplastic fiber, meltblown thermoplastic microfibers or rayon fibers, such unmatted inner and outer layers,” and (d) the “median layer of carded and crosslaid viscose

Art Unit: 1786

rayon fibers” of Gillies are not “felts” (Wright Declaration, paragraph 13). With respect to Sternlieb, the examiner disagrees that the carded fiber layer is unmatted and without structural integrity (Wright Declaration, paragraph 13 and Brief, page 29, 1st and 2nd paragraphs) in that the reference clearly teaches the fibers are “intermingled, non-parallel fibers” which inherently will produce at least some matting and structural integrity, at least enough for subsequent processing. Additionally, note the carded fiber layer of Sternlieb is stitchbonded with the woven scrim layer, thereby providing, in the final product, even more fiber matting and structural integrity to the carded fiber layer. Therefore, even appellant’s narrower definition of “felt web” is met by the reference.

Similarly, the examiner disagrees that the batt of relatively brittle fibers in Lefkowitz is necessarily unmatted and without structural integrity (Wright Declaration, paragraph 13 and Brief, page 30, 2nd paragraph). While Lefkowitz teaches the batt may be a cross-lapped or air-laid batt, the reference also clearly teaches that prior to stitchbonding, it may be necessary to support the batt or increase the batt’s integrity for ease in metering into the stitchbonding knitting machine (col. 4, lines 19-29 and 55-58). Lefkowitz teaches this can be accomplished by lightly needling the batt to a scrim substrate or by bonding the batt with resin bonding, thermal bonding, or needling (col. 4, line 55-col. 5, line 14). Hence, Lefkowitz clearly teaches a batt having matted fibers (e.g., needle-punched) with at least sufficient structural integrity to pass through a stitchbonding machine (i.e., a felt). Furthermore, as noted above, in the final product, the batt of Lefkowitz would possess even more matting and integrity due to the stitchbonding process. Therefore, appellant’s narrower definition of “felt web” is met by the teachings of Lefkowitz.

Art Unit: 1786

Again, the examiner disagrees that the “middle layer of cellulose natural fibers and outer layers of layers of either continuous filament thermoplastic fiber, meltblown thermoplastic microfibers or rayon fibers” of the Ott reference are unmatted (Wright Declaration, paragraph 13 and Brief, page 31, 1st paragraph). Fibers of a wet-laid or dry-laid paper web and of a spunbond or meltblown nonwoven inherently possess some intermingling (i.e., matting and structural integrity). Additionally, the nonwoven webs taught by Ott clearly possess additional means of bonding to produce structural integrity for subsequent processing: paper or tissue webs inherently have at least hydrogen bonding and spunbond or meltblown nonwovens inherently have at least some thermal bonding. Furthermore, upon stitchbonding, the final product will include “felt webs” according to appellant’s definition.

Lastly, the carded and cross-laid web of fibers in Gillies (Wright Declaration, paragraph 13 and Brief, page 32, 1st paragraph) inherently possesses some degree of matting or intermingling of fibers and at least some degree of structural integrity sufficient for subsequent processing. Additionally, upon stitchbonding, the final product of Gillies does possess the features of appellant’s definition of “felt web.”

Note appellant claims a final product comprising a “felt web” rather than an intermediate product of a “felt web” or a process of making the final product using a starting product of a “felt web.” In other words, the claims do not necessarily limit the degree of matting or structural integrity prior to being stitchbonded.

Thus, the examiner’s interpretation of the term “felt web” has been of record is consistent with examination practices. Additionally, even by appellant’s definition of “felt web,” the

Art Unit: 1786

claims as recited are properly rejected over the cited prior art. Therefore, appellant's traversal of the rejections based upon the term "felt web" being improperly defined is found unpersuasive.

C. Appellant traverses the obviousness rejection by asserting that the claim language (i.e., the yarn face is effectively continuous such that the felt surface is not generally exposed) is not too subjective to be relied upon for distinguishing the present invention from the prior art (Brief, page 18, 2nd paragraph). Appellant cites several court decisions, including *Ecolab, Inc. v. Envirochem, Inc.*, 60 USPQ2d 1171, *Pall Corp. v. Micron Separations, Inc.*, 36 USPQ2d 1225, and *Andrew Corp. v. Gabriel Elecs. Inc.*, 6 USPQ 2010, in support of the position that relative terms, such as "substantially" and "generally" have been accepted in patent examination and upheld by the courts (Brief, paragraph spanning pages 18-19 and paragraph spanning pages 21-22).

The examiner does not dispute that relative terminology can be acceptable in claims with respect to definiteness under 35 USC 112, 2nd paragraph. However, the claims are not rejected under 112, 2nd paragraph. Rather, the rejections in question are anticipation rejections under 35 USC 102 and obviousness rejections under 35 USC 103. Relative terminology, while being definite under 112, 2nd, cannot serve to patentably distinguish a claim from the prior art. With appellant's relative claim terminology, any differences that may exist between the prior art and the present invention are determined in a subjective matter (i.e., dependent upon a viewer) rather than by an objective standard of measurement. As such, the quantitative values of stitch density, yarn denier, etc. taught by the cited prior art meet the subjective standard of determination by a

Art Unit: 1786

viewer as claimed by appellant. Therefore, appellant's arguments with respect to the relative terminology are found unpersuasive.

D. With respect to the obviousness rejection based upon the Kyle reference, appellant traverses there would have been no basis to modify Kyle in light of Ott, Gilles, and/or Sternlieb (Brief, page 34, 2nd paragraph). Specifically, appellant questions why one would "throw away the facing fabric of Kyle in favor of the stitching yarns of Sternlieb" (Brief, page 34, 3rd paragraph). In response, the rejection is not based upon the premise of "throwing away" the facing fabric of Kyle. Rather, Kyle teaches a composite article comprising an absorbent hydrophilic layer and a non-absorbent hydrophobic layer that are sewn, bonded, quilted, or welded together (abstract and col. 4, lines 65-66). As such, it would have been readily obvious to substitute one known method of attaching the layers (i.e., Kyle's sewing, quilting, bonding, or welding) with another known method of attaching the layers (i.e., Ott, Gilles, and Sternlieb's stitchbonding method). Such a substitution of attachment methods would have yielded predictable results to one skilled in the art at the time of the invention.

Regarding the secondary reference of Gillies, appellant argues that the felt of Kyle suffices on its own and does not need the stitchbonding taught by Gilles in order to maintain its integrity (Brief, page 35, 1st paragraph). This argument is also flawed since the rejection is not based upon employing stitchbonding in the Kyle invention in order to provide integrity to a felt layer of Kyle. Rather, the rejection is based upon the obviousness of stitchbonding as a means for attaching the two felt layers together to provide a composite material.

Art Unit: 1786

With respect to the reliance upon Ott as a secondary reference in the Kyle rejection, appellant argues there is no reason or motivation to “simply pick out the stitchbonding of Ott in favor of the facing fabric of Kyle” (Brief, paragraph spanning pages 35-36). As discussed above, the rejection does not require the removal of Kyle’s facing fabric. Additionally, it is reiterated that the rejection is based upon the use of stitchbonding as a means of attachment for the two felt layers of Kyle. Hence, appellant’s arguments against the Kyle rejections have been found unpersuasive.

(11) Related Proceeding(s) Appendix

Copies of the court or Board decision identified in the Related Appeals and Interferences section of this examiner’s answer are provided herein. See Exhibits C and D of the Appeal Brief.

Art Unit: 1786

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Cheryl Juska/
Primary Examiner
Art Unit 1786

Conferees:

/D. Lawrence Tarazano/
Supervisory Patent Examiner, Art Unit 1786

/Rena L. Dye/
Supervisory Patent Examiner, Art Unit 1782